

a second light emitting element having a second read/write specification different than the first read/write specification;

a photodetector element;

an optical element including a partially reflective plane disposed to reflect light from at least one of the first and second light emitting elements; and

a base body supporting the light emitting elements, the photodetector element, and the optical element, with the optical element covering the photodetector element.

44. A composite optical device according to claim 43, wherein the first and second light emitting elements are disposed at different heights above the base body.

45. A composite optical device according to claim 43, wherein the first and second light emitting elements are disposed in an over-and-under relationship.

46. A composite optical device according to claim 43, wherein the first and second light emitting elements are disposed in a side-by-side relationship.

47. A composite optical device according to claim 43, wherein the first and second light emitting elements share a common optical axis.

48. A composite optical device according to claim 43, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

49. A composite optical device according to claim 44, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

50. A composite optical device according to claim 45, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

52. A composite optical device according to claim 47, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

53. A composite optical device according to claim 43, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

54. A composite optical device according to claim 44, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

55. A composite optical device according to claim 45, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

56. A composite optical device according to claim 46, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

57. A composite optical device according to claim 47, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

61. An optical memory system comprising
 a first light emitting element having a first read/write specification;
 a second light emitting element having a second read/write specification different
 than the first read/write specification;
 a driver circuit for the first and second light emitting elements;

a selector coupled to the first and second light emitting elements and the driver circuit for switching between the first and second light emitting elements; and

an optical element including a partially reflective plane disposed to reflect light from at least one of the first and second light emitting elements toward an optical recording medium, the optical element supported by a base and covering a photodetector.

62. An optical memory system according to claim 61, wherein the first and second light emitting elements are disposed at different heights above the base body.

63. An optical memory system according to claim 61, wherein the first and second light emitting elements are disposed in an over-and-under relationship.

65. An optical memory system according to claim 61, wherein the first and second light emitting elements share a common optical axis.

66. An optical memory system according to claim 61, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

67. An optical memory system according to claim 62, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

68. An optical memory system according to claim 63, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

70. An optical memory system according to claim 65, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

71. An optical memory system according to claim 61, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

72. An optical memory system according to claim 62, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

73. An optical memory system according to claim 63, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

75. An optical memory system according to claim 65, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

77. An optical memory system according to claim 65, wherein the partially reflective plane is disposed on a first side of the optical element, and wherein the optical element includes an additional partially reflective plane on a second side of the optical element.

78. An optical memory system according to claim 77, wherein the first partially reflective plane is disposed to reflect light from the first light emitting element and wherein the second partially reflective plane is disposed to reflect light from the second light emitting element.

79. A method for transferring data to or from optical recording media of different formats, the method comprising:

selecting between a first light emitting element having a first read/write specification and a second light emitting element having a second read/write specification, thereby establishing a selected light emitting element;

driving the selected light emitting element so that it emits light toward an optical element supported by a base body and covering a photodetector;

reflecting light from a partially reflective plane of the optical element toward an optical recording medium; and

reading data returned from the optical recording medium through the optical element using the photodetector.

80. A method according to claim 79, wherein selecting comprises selecting between first and second light emitting elements disposed at different heights above the base body.

82. A method according to claim 79, wherein selecting comprises selecting between first and second light emitting elements sharing a common optical axis.

83. A method according to claim 79, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

84. A method according to claim 80, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

86. A method according to claim 82, wherein the first and second read/write specifications are selected from a group consisting of CD, CD-R, MD, MO, Phase Change Disc, and DVD read/write specifications.

87. A method according to claim 79, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.

88. A method according to claim 80, wherein the first and second read/write specifications include a wavelength selected from the range of 500 nm through 780 nm.